

Statement of Edward Comer, Edison Electric Institute, on Senate Bill No. 438

Good morning. I am Edward Comer, Vice President of the Edison Electric Institute (EEI). EEI is the national association that represents all U.S. investor-owned electric companies. Our members provide electricity to nearly 70 percent of American industries, businesses, and consumers; operate in all 50 states and the District of Columbia; and directly and indirectly employ more than one million Americans. Both Consumers Energy and DTE Energy are members of EEI.

Thank you for inviting me to participate in this hearing on Senate Bill No. 438, revising Michigan's distributed generation policies. I am delighted to be here in Michigan again. I appeared before a Michigan PUC workshop on the value of solar energy in 2014, and I found the public participation and engagement process to be very useful.

Safe, reliable, affordable, and clean electricity is critical to our way of life and to our nation's economy. As the U.S. increasingly moves to a low-carbon and digital future, EEI is working with our member companies and with policymakers and industry stakeholders across the country to assure that the transition to a clean energy future is done in a way that provides customers the new energy technologies and electric services they want, while at the same time keeping electricity costs low, protecting reliability, and enhancing resiliency.

It is no secret that there is growing interest in and support for solar energy—it produces carbon-free electricity and is an important part of our energy mix. In many places, solar energy makes sense because the sun generates energy during much of the day when customers need it most. But wind energy also provides the same benefits. In fact, given the high level of cloudiness in Detroit and Lansing, wind tends to be the lower cost renewable option for much of Michigan.

Unlike other energy sources, though, electricity has unique properties—it must be generated and delivered at the precise moment it is needed. As a result, variable

energy resources, such as solar, today must be complemented by baseload generation sources—or power that is available and can be called on when needed—to ensure that customers have reliable, high-quality electricity around the clock. That’s where the power grid comes in.

The power grid, which consists of the transmission and distribution poles, wires, controls, and transformers that deliver electricity to homes and businesses, is vitally important to our economy and our way of life. It is a national asset and powers everything we do. In fact, the power grid is already integrating a diverse set of energy resources, including utility scale and rooftop solar. In sunny states like Hawaii, California, and Arizona, utilities are witnessing exponential growth in rooftop solar and learning how to best integrate it into the grid, while at the same time implementing solutions to the technical challenges associated with solar.

Now I would like to address some common myths about solar and explain why Senate Bill 438 assures that customers have the opportunity to install solar power while avoiding excessive subsidies.

One myth you might have heard is that the utility industry is not committed to solar. Today, I’d like to set the record straight. America’s electric utilities are leaders when it comes to expanding solar energy options for customers. In fact, utility-scale solar projects amount to nearly 60 percent of all U.S. installed solar capacity. And, the industry’s installed solar capacity is expected to triple by the end of 2016. Like both DTE and Consumers, utilities everywhere are increasing their investment in solar.

In addition, the International Energy Agency projects that the U.S. electric power industry will invest \$9 billion per year in solar between 2014 and 2020. At the same time, utilities are also making significant investments to help manage the integration of solar and other new technologies into the power grid, spending nearly \$40 billion each year on the transmission and distribution systems.

Another myth is that rooftop solar power is low-cost. Independent studies from the Massachusetts Institute of Technology, the Energy Information Administration, and The Brattle Group all confirm that utility-scale solar systems can produce electricity at half the cost of distributed solar systems.

Large-scale utility solar projects are highly efficient because they are designed to maximize production of electricity and are located in the sunniest areas so they capture more of the sun's energy. It also is less expensive to install and control one large-scale solar system than many smaller systems.

In addition, the Brattle study confirms that utility-scale solar systems can save 50% more carbon than rooftop systems because they are far more efficient in capturing the sun's energy. In effect, we can get three times more carbon benefit per dollar invested from a utility-scale solar system than from a distributed solar system.

Another common misconception is that rooftop solar customers don't need the power grid. Actually, rooftop solar customers use the grid 24/7—to import power, to export power, and to make sure that their homes have the exact amount of electricity they need, when they need it.

We all know the sun doesn't shine all the time – so that's why it's only fair that everyone who uses the grid should continue to share in the cost of maintaining it and keeping it operating reliably. In most states, grid costs tend to be around about one-half of all utility costs.

A related myth is that the grid is not important to growing rooftop solar. Not so! Power use peaks in late afternoon or early evening when solar energy output is already declining. Since the grid must be sized to work at the peak, solar energy does little to avoid peak grid needs. In fact, distributed generation requires utilities to invest in new communications, metering, and control technologies to transform the distribution system from a one-way to a two-way system.

The grid integrates, connects, and supports rooftop solar. Even at peak solar output, rooftop solar systems need the support of the grid to start large motors. That means on hot days the grid connection is what allows rooftop solar owners to turn on their air conditioners!

Lastly, **one myth** some of you may be hearing is that today's net metering policies work just fine. The fact is net metering provides a huge subsidy, which allows customers to avoid paying the costs of the grid even though they rely upon it around the clock. Today legislators and regulators in almost every state are revisiting old net metering policies that were introduced to provide a subsidy for a limited amount of solar power when solar costs were high. As solar costs have declined and the use of rooftop solar continues to expand, net metering policies are being reviewed and updated to ensure that electric rates are fair and affordable for everyone.

Moreover, distributed solar systems are already highly subsidized. Congress provides a 30-percent federal tax credit for residential solar systems. Preliminary results of a forthcoming study on net metering reveal that the net metering subsidy for residential customers in Michigan would be twice as large—60 percent of the cost of a solar system—if leased over 25 years.

Together with the federal tax credit, this would pay for 90 percent of the cost of a distributed solar system. And, this rate subsidy would be paid by utility customers who do not want or cannot afford their own solar systems. Residential rooftop solar is not technically feasible or affordable for everyone—in fact, approximately 75 percent of all U.S. residential rooftops are not suitable for solar installations according to the National Renewable Energy Laboratory.

The pricing provisions of S. 438 provide a fair framework to compensate for distributed energy production.

The pricing framework in SB. 438 is very simple and truly a breakthrough. Distributed solar generation is effectively paid the competitive wholesale rate for power on an hourly basis, and thus allowed to earn high prices when power costs rise, as they often do during hot summer afternoons. This wholesale rate is based on Federal Energy Regulatory Commission-approved market design to replicate the competitive price of power throughout the Midwest. It is a fair price for the power produced by distributed generation. Moreover, utilities continue to receive retail prices for power used by distributed generators. This assures that the generators continue to pay for the cost of the grid, which they continue to use.

In closing, solar is an important part of our nation's current and future energy mix, and customers should have the option to install rooftop solar panels. That's why it's critical that we all work together to get the policies that support solar right.

SB. 438 avoids creating a long-term entitlement to subsidy programs and establishes a fair and sustainable program both to pay for the grid and to pay for distributed solar with competitive real-time prices for power. This is a positive step toward a bright energy future for Michigan.

I look forward to your questions. Thank you very much.

